

TEST REPORT

Applicant Name: Shenzhen eMeet technology Co.,Ltd
Address: Unit 2C, Building A6, Guangming Science Park, Guangguang Road 3009, Guangming District, Shenzhen, China
Report Number: 2601Q16390E-RF
FCC ID: 2ALCN-E5002
IC: 23496-E5002

Test Standard (s)

FCC PART 15.249 ;
RSS-GEN ISSUE 5, FEBRUARY 2021 AMENDMENT 2; RSS-210, ISSUE 11, JUNE 25, 2024

Sample Description

Product Type: EMEET Remote Control R7, EMEET Remote Control R7 E, EMEET Remote Control R7 X
Model No.: E5002
Multiple Model(s) No.: E5003, E5004
Trade Mark: N/A
Date Received: 2026/03/02
Issue Date: 2026/04/07

Test Result:	Pass▲
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▲ In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

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Ekko Wu
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RF Supervisor

Note: The information marked * is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	2601Q16390E-RF	Original Report	2026/04/07

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

HVIN	E5002,E5003,E5004
FVIN	N/A
Product	EMEET Remote Control R7, EMEET Remote Control R7 E, EMEET Remote Control R7 X
Tested Model	E5002
Multiple Model(s)	E5003, E5004
Frequency Range	2402-2480MHz
Maximum E-field strength	79.87dBuV/m@3m
Modulation Technique	GFSK
Antenna Specification [#]	-0.93dBi (provided by the applicant)
Voltage Range	DC 3.0 V from battery
Sample serial number	3HTC-14 (Assigned by BACL, Shenzhen)
Sample/EUT Status	Good condition
Adapter Information	N/A
Note: The Multiple models are electrically identical with the test model except for product name, model name and different with the names of distribution chains. Please refer to the declaration letter [#] for more detail, which was provided by manufacturer.	

Objective

This test report is in accordance with Part 2-Subpart J, and Part 15-Subparts A and C of the Federal Communication Commissions rules and RSS-GEN Issue 5, February 2021 Amendment 2 and RSS-210, Issue 11, June 25, 2024 of the Innovation, Science and Economic Development Canada..

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020+Cor.1-2023+C63.10a-2024 + Errata to C63.10a-2024 ▼, RSS-Gen and RSS-210.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		52.29kHz(k=1.96, 95% level of confidence)
RF Frequency		81.235Hz(k=1.96, 95% level of confidence)
RF output power, conducted		1.57dB(k=1.96, 95% level of confidence)
Conducted Spurious Emission		2.48dB(k=1.96, 95% level of confidence)
AC Power Lines Conducted Emissions	9kHz~150 kHz	3.46dB(k=2, 95% level of confidence)
	150 kHz ~30MHz	3.72dB(k=2, 95% level of confidence)
Radiated Emissions	0.009MHz~30MHz	3.66dB(k=2, 95% level of confidence)
	30MHz~1000MHz (Horizontal)	5.10dB(k=2, 95% level of confidence)
	30MHz~1000MHz (Vertical)	6.28dB(k=2, 95% level of confidence)
	1GHz - 6GHz	6.18dB(k=2, 95% level of confidence)
	6GHz - 18GHz	6.62dB(k=2, 95% level of confidence)
	18GHz - 40GHz	6.66dB(k=2, 95% level of confidence)
Temperature		$\pm 0.4^{\circ}\text{C}$
Humidity		$\pm 2\%$
Supply voltages		DC $\pm 0.4\%$; AC $\pm 1\%$

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West) , 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, test firm registration No.: 715558, the FCC Designation No. : CN5045.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0023.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing by manufacturer.

Frequency Channel List#:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404	21	2444
2	2406	22	2446
3	2408	23	2448
4	2410	24	2450
5	2412	25	2452
6	2414	26	2454
7	2416	27	2456
8	2418	28	2458
9	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

EUT was tested with Channel 0, 19 and 39.

EUT Exercise Software

“BT-Tool-v1.1.4.exe”# exercise software was used and the power level is 3#. The software and power level was provided by the applicant.

Equipment Modifications

No modifications were made to the unit tested.

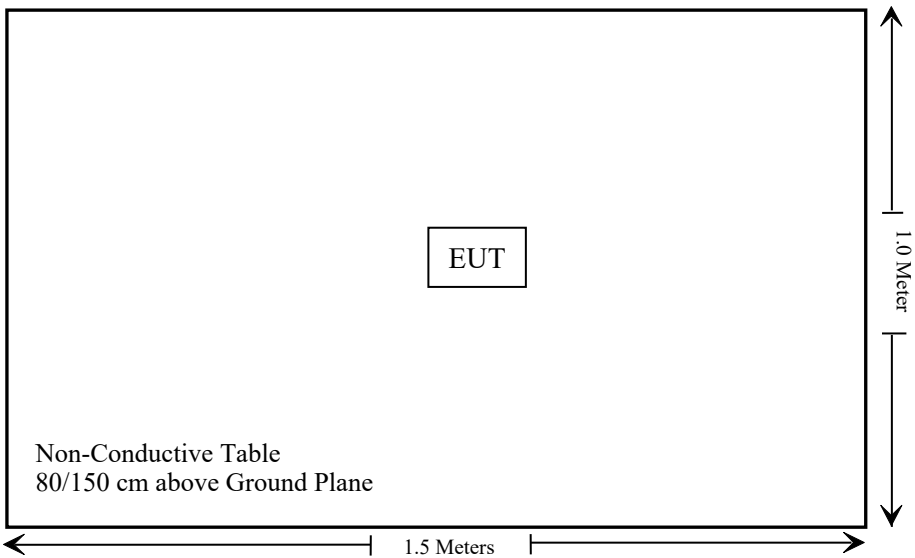
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

Support Cable Descriptions

Cable Description	Length (m)	From/Port	To
/	/	/	/

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

Test Rules	Test Rules	Description of Test	Result
FCC §1.1307 (b) (3) & §2.1093	-	RF Exposure	Compliant
-	RSS-102 §6.3	SAR Exemption Limits	Compliant
FCC §15.203	RSS-GEN Clause 6.8	Antenna Requirement	Compliant
FCC §15.207(a)	RSS-Gen Clause 8.8	AC Line Conducted Emissions	Not Applicable
FCC §15.205, §15.209, §15.249(a)(c)(d)	RSS-210 Annex B.10 RSS-Gen Clause 8.10	Radiated Emissions& Outside of Band Emission	Compliant
FCC §15.215 (c)	RSS-Gen Clause 6.7	20 dB Bandwidth&99% Occupied Bandwidth	Compliant

Not Applicable: The EUT is powered by battery only.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emissions					
Rohde & Schwarz	EMI Test Receiver	ESR3	102455	2025/09/01	2026/08/31
Sonoma instrument	Pre-amplifier	310 N	186238	2025/09/08	2026/09/07
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2023/07/20	2026/07/19
Unknown	Chamber A Cable	Cable A1	Cable A1	2025/09/08	2026/09/07
Unknown	Chamber A Cable	Cable A2	Cable A2	2025/09/08	2026/09/07
BACL	Active Loop Antenna	1313-1A	4031911	2024/05/14	2027/05/13
Unknown	Chamber A Cable	Cable A3	Cable A3	2025/09/08	2026/09/07
Unknown	Chamber A Cable	Cable A4	Cable A4	2025/09/08	2026/09/07
Audix	EMI Test software	E3	19821b(V9)	NCR	NCR
TDK	Chamber	Chamber A	2#	2023/07/12	2026/07/11
Rohde & Schwarz	Spectrum Analyzer	FSV40	101605	2025/09/01	2026/08/31
A.H.System	Preamplifier	PAM-0118P	489	2025/09/08	2026/09/07
Schwarzbeck	Horn Antenna	BBHA9120D (1201)	1143	2023/07/26	2026/07/25
Unknown	Chamber B Cable	Cable B1	Cable B1	2025/09/08	2026/09/07
Unknown	Chamber B Cable	Cable B2	Cable B2	2025/09/08	2026/09/07
Unknown	Chamber B Cable	Cable B3	Cable B3	2025/09/08	2026/09/07
JD	Filter Switch Unit	DT7220FSU	DS79906	2025/08/12	2026/08/11
JD	Multiplex Switch Test Control Set	DT7220SCU	DS79903	2025/08/12	2026/08/11
A.H.System	Pre-amplifier	PAM-1840VH	190	2025/09/08	2026/09/07
Electro-Mechanics Co	Horn Antenna	3116	9510-2270	2023/09/18	2026/09/17
Unknown	Chamber B Cable	Cable B4	Cable B4	2025/09/17	2026/09/16
Unknown	Chamber B Cable	Cable B5	Cable B5	2025/09/17	2026/09/16
Audix	EMI Test software	E3	191218 V9(c)	NCR	NCR
TDK	Chamber	Chamber B	1#	2023/07/14	2026/07/13

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §1.1307 (b) (3) & §2.1093 - RF EXPOSURE

Applicable Standard

According to FCC §2.1093 and §1.1307(b) (3), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D04 Interim General RF Exposure Guidance V01

1-mW Test Exemption:

Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

For worst case:

Mode	Frequency (MHz)	Maximum E-Field (dBuV/m@3m)	Maximum EIRP		1-mW Test Exemption
			(dBm)	(mW)	
GFSK	2402-2480	79.87	-15.33	0.03	Yes

Note: EIRP = E-Field - 95.2 @3m

Result: Compliant.

RSS-102 § 6.3 -SAR EXEMPTION LIMITS

Applicable Standard

According to RSS-102 Issue 6 § (6.3), Devices operating at or below the applicable output power levels (adjusted for tune-up tolerance) specified in table 11, based on the separation distance, are exempt from SAR evaluation. The separation distance, defined as the distance between the user and/or bystander and the antenna and/or radiating element of the device or the outer surface of the device, shall be less than or equal to 20 cm for these exemption limits to apply.

Table 11: Power limits for exemption from routine SAR evaluation based on the separation distance

Frequency (MHz)	≤ 5 mm (mW)	10 mm (mW)	15 mm (mW)	20 mm (mW)	25 mm (mW)	30 mm (mW)	35 mm (mW)	40 mm (mW)	45 mm (mW)	> 50 mm (mW)
≤ 300	45	116	139	163	189	216	246	280	319	362
450	32	71	87	104	124	147	175	208	248	296
835	21	32	41	54	72	96	129	172	228	298
1900	6	10	18	33	57	92	138	194	257	323
2450	3	7	16	32	56	89	128	170	209	245
3500	2	6	15	29	50	72	94	114	134	158
5800	1	5	13	23	32	41	54	74	102	128

The exemption limits in table 11 are based on measurements and simulations of half-wave dipole antennas at separation distances of 5 mm to 50 mm from a flat phantom, which provides a SAR value of approximately 0.4 W/kg for 1 g of tissue.

For limb-worn devices where the 10 gram of tissue applies, the exemption limits for routine evaluation in table 11 are multiplied by a factor of 2.5.

For controlled-use devices where the 8 W/kg for 1 gram of tissue applies, the exemption limits for routine evaluation in table 11 are multiplied by a factor of 5.

When the operating frequency of the device is between two frequencies located in table 11, linear interpolation shall be applied for the applicable separation distance. If the separation distance of the device is between two distances located in table 11, linear interpolation may be applied for the applicable frequency. Alternatively, the limit corresponding to the smaller distance may be employed. For example, in case of a 7 mm separation distance, either use the exception value for a 5 mm separation distance or interpolate between the limits corresponding to 5 mm and 10 mm separation distances.

For implanted medical devices, the exemption limit for routine SAR evaluation is set at an output power of 1 mW, regardless of frequency.

The SAR levels from exempted transmitters shall be included in the compliance assessment and the determination of the TER. Detailed guidance is included in sections 7.1.8 and 8.2.2.1.

Test Result:

For worst case:

Mode	Frequency (MHz)	Maximum E-Field (dBuV/m@3m)	Maximum EIRP		Exemption Limit (mW)	SAR Evaluation Exemption
			(dBm)	(mW)		
GFSK	2402-2480	79.87	-15.33	0.03	2.97	Yes

Note 1: EIRP = E-Field - 95.2 @3m

Note 2: (2480-2450)/(3500-2450)= (3-P)/(3-2), the exemption limit of 2480MHz is P= 2.97mW

FCC §15.203 & RSS-GEN §6.8 - ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine Compliant with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

Antenna must be permanently attached to the unit.

Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the Compliant of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer.

The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device. Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

Antenna Connector Construction

The EUT has one internal antenna which was permanently attached and the antenna gain[#] is -0.93dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Antenna Type	Antenna Gain [#]	Impedance	Frequency Range
PCB	-0.93dBi	50Ω	2400-2500MHz

Result: Compliant.

FCC§15.205, §15.209 & §15.249(a)(c)(d) & RSS -GEN §8.10& RSS-210 B.10(A) - RADIATED EMISSIONS

Applicable Standard

As per FCC§15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

As per FCC§15.249 (d), Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

As per RSS-210 Annex B.10

(a) The field strength of fundamental and harmonic emissions measured at 3 m shall not exceed the limits in table B2.

Table B2 — Field strength limits at various frequencies

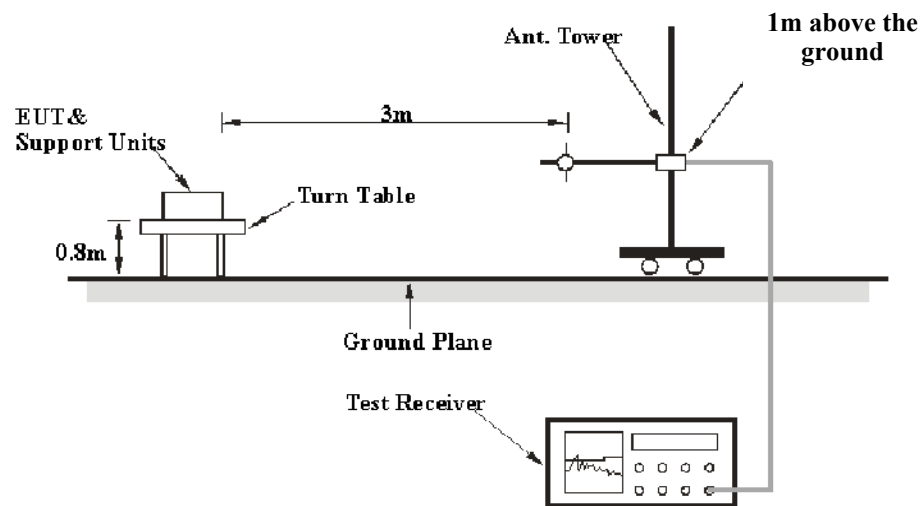
Frequency bands (MHz)	Field strength (mV/m)	
	Fundamental emissions	Harmonic emissions
902-928	50	0.5
2400-2483.5	50	0.5
5725-5875	50	0.5
24000-24250	250	2.5

The field strength shall be measured using an average detector, except for the fundamental emission in the frequency band 902-928 MHz, which is based on measurements using an International Special Committee on Radio Interference (CISPR) quasi-peak detector.

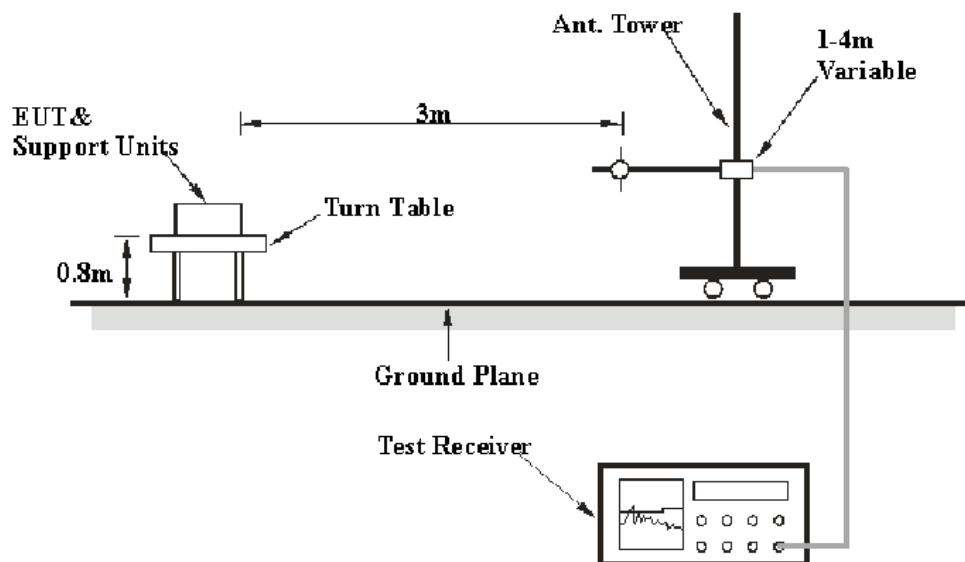
(b) Emissions radiated outside of the specified frequency bands, except for harmonic emissions, shall be attenuated by at least 50 dB below the level of the fundamental emissions or to the general field strength limits listed in RSS-Gen, whichever is less stringent.

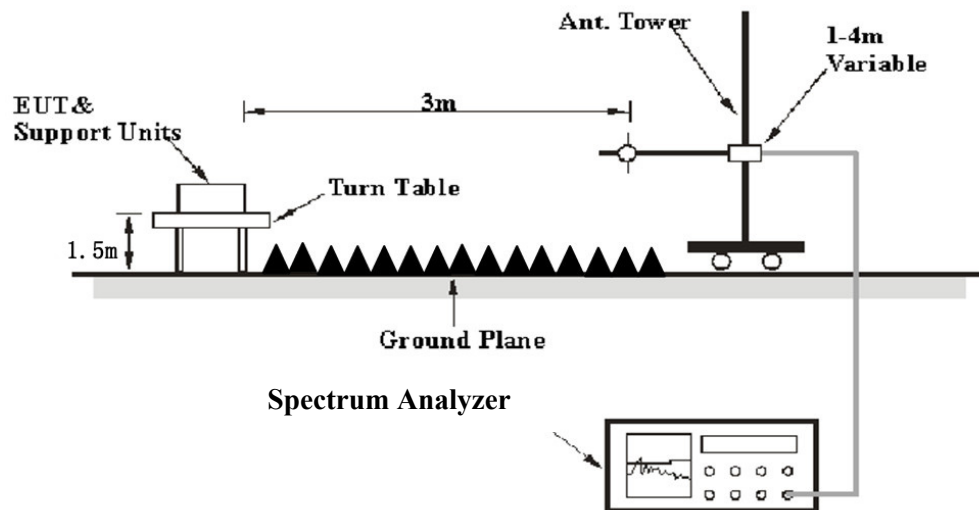
EUT Setup

9 kHz-30MHz:



30MHz-1GHz:



Above 1GHz:

The radiated emission and out of band emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2020 & RSS-Gen. The specification used was the FCC 15.209/15.205, FCC 15.249, RSS-Gen and RSS-210 limits.

EMI Test Receiver & Spectrum Analyzer Setup

The EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement	Detector
9 kHz – 150 kHz	/	/	200 Hz	QP	QP
	300 Hz	1 kHz	/	PK	PK
150 kHz – 30 MHz	/	/	9 kHz	QP	QP
	10 kHz	30 kHz	/	PK	PK
30 MHz – 1000 MHz	/	/	120 kHz	QP	QP
	100 kHz	300 kHz	/	PK	PK
Above 1 GHz	1MHz	3 MHz	/	PK	PK
	1MHz	≥10 Hz	/	Average	PK

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 meter, and the EUT is placed on a turntable, which is 0.8 meter above ground plane for below 1GHz or 1.5 meter for above 1GHz, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

All final data was recorded in Quasi-peak detection mode except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz, average detection modes for frequency bands 9–90 kHz and 110–490 kHz, peak and average detection modes for frequencies above 1 GHz.

For 9 kHz-30MHz, the report shall list the six emissions with the smallest margin relative to the limit, for each of the three antenna orientations (parallel, perpendicular, and ground-parallel) unless the margin is greater than 20 dB.

All emissions under the average limit and under the noise floor have not recorded in the report.

Factor & Over Limit/Margin Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Over Limit/Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

$$\begin{aligned} \text{Over Limit} &= \text{Level} - \text{Limit}; \text{Margin} = \text{Limit} - \text{Corrected Amplitude} \\ \text{Level} / \text{Corrected Amplitude} &= \text{Read Level} + \text{Factor} \end{aligned}$$

Test Data

Environmental Conditions

Temperature:	22.6~25.2 °C
Relative Humidity:	48~52 %
ATM Pressure:	101.2~101.8 kPa

The testing was performed by Anson Su on 2026-03-20 for below 1GHz and Wing K Ji on 2026-03-17 for above 1GHz.

EUT operation mode: Transmitting

Note:

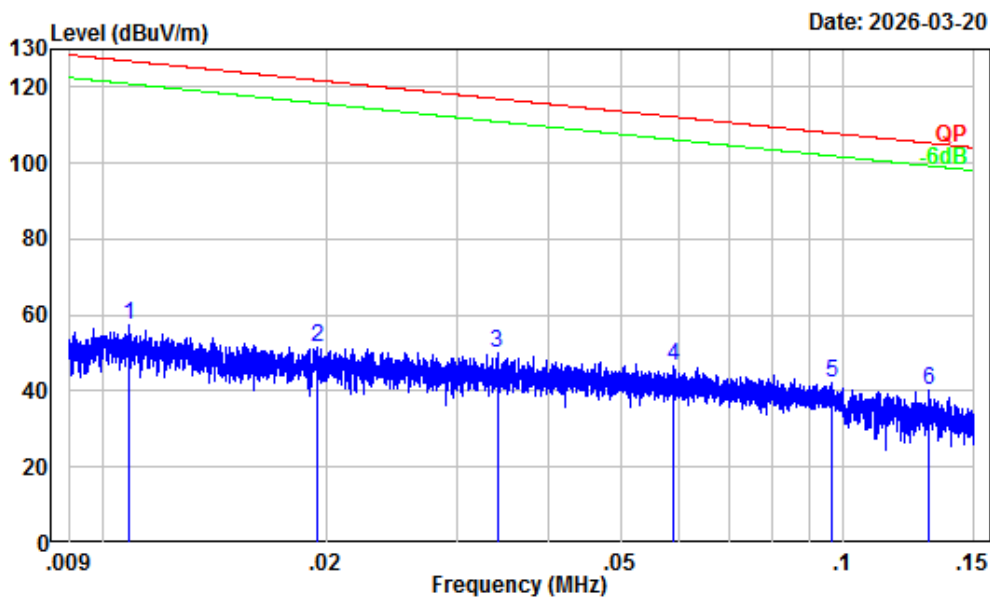
1. The spurious emission from 9 kHz-30MHz of IC RSS-GEN standard, the unit of final result on the test plots are dBμV/m, so the limit should be added by 51,5 dB from dBμA/m to dBμV/m.

2. After pre-scan in the X, Y and Z axes of orientation, the worst case z-axis of orientation were recorded.

9 kHz-30MHz: (The maximum E-Field strength channel: Low Channel was tested.)

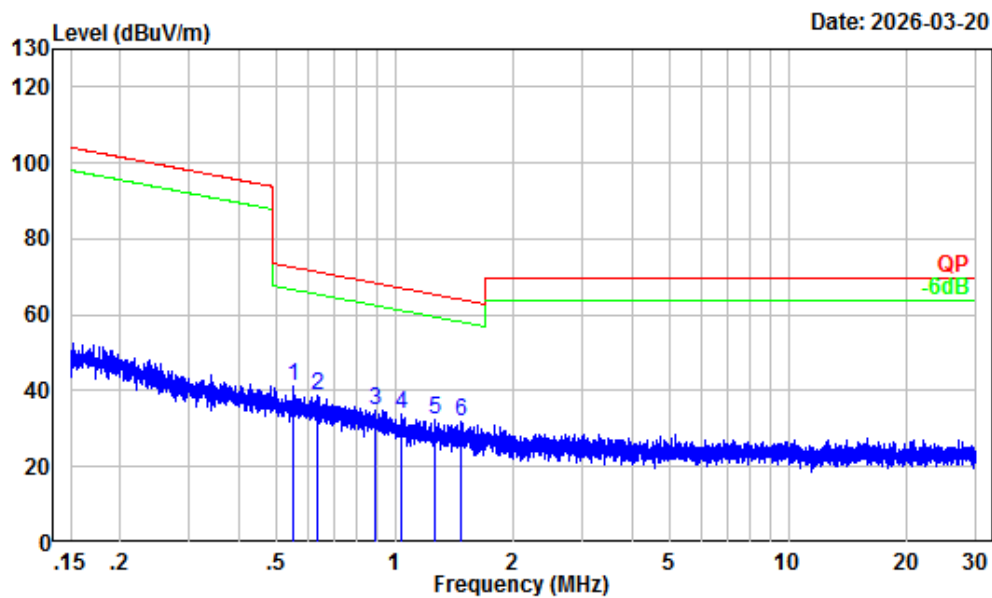
Note: When the test result of peak was less than the limit of QP/Average more than 6dB, just peak value were recorded.

Parallel (worst case)



Site : Chamber A
Condition : 3m
Project Number : 2601Q16390E-RF
Test Mode : Transmitting
Detector: Peak RBW/VBW: 0.3/kHz
Tester : Anson Su

	Freq	Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.011	32.13	25.06	57.19	126.87	-69.68	Peak
2	0.020	30.49	21.05	51.54	121.79	-70.25	Peak
3	0.034	28.07	21.93	50.00	116.95	-66.95	Peak
4	0.059	25.52	21.10	46.62	112.22	-65.60	Peak
5	0.096	22.26	19.75	42.01	107.93	-65.92	Peak
6	0.130	20.22	20.09	40.31	105.31	-65.00	Peak

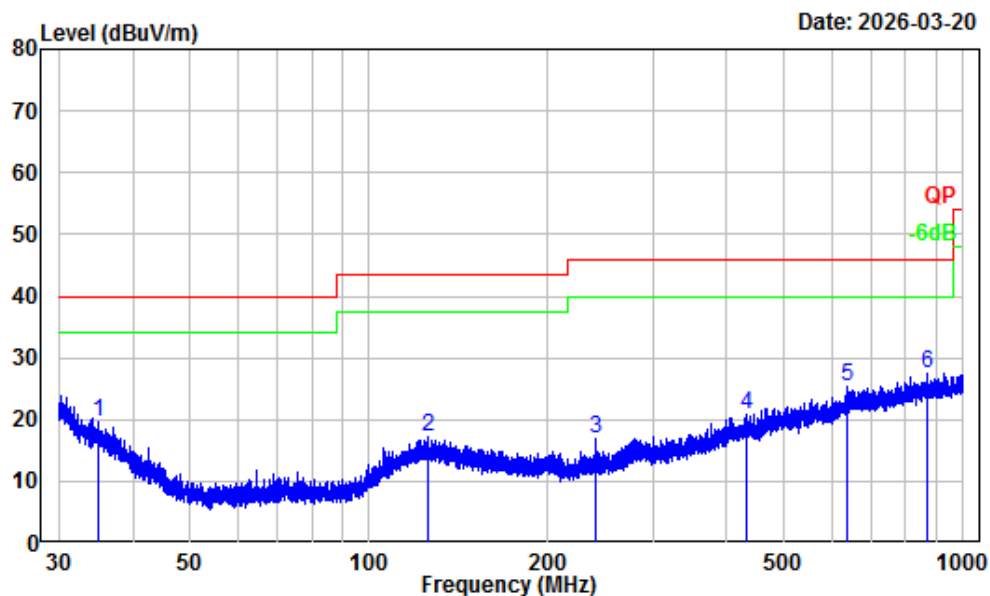


Site : Chamber A
Condition : 3m
Project Number : 2601Q16390E-RF
Test Mode : Transmitting
Detector: Peak RBW/VBW: 10/30kHz
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	0.552	5.76	35.61	41.37	72.75	-31.38	Peak
2	0.633	4.76	33.86	38.62	71.53	-32.91	Peak
3	0.892	2.01	32.97	34.98	68.49	-33.51	Peak
4	1.035	1.10	32.77	33.87	67.17	-33.30	Peak
5	1.263	0.46	31.69	32.15	65.40	-33.25	Peak
6	1.480	-0.14	31.96	31.82	64.00	-32.18	Peak

30MHz-1GHz: (The maximum E-Field strength channel: Low Channel was tested.)

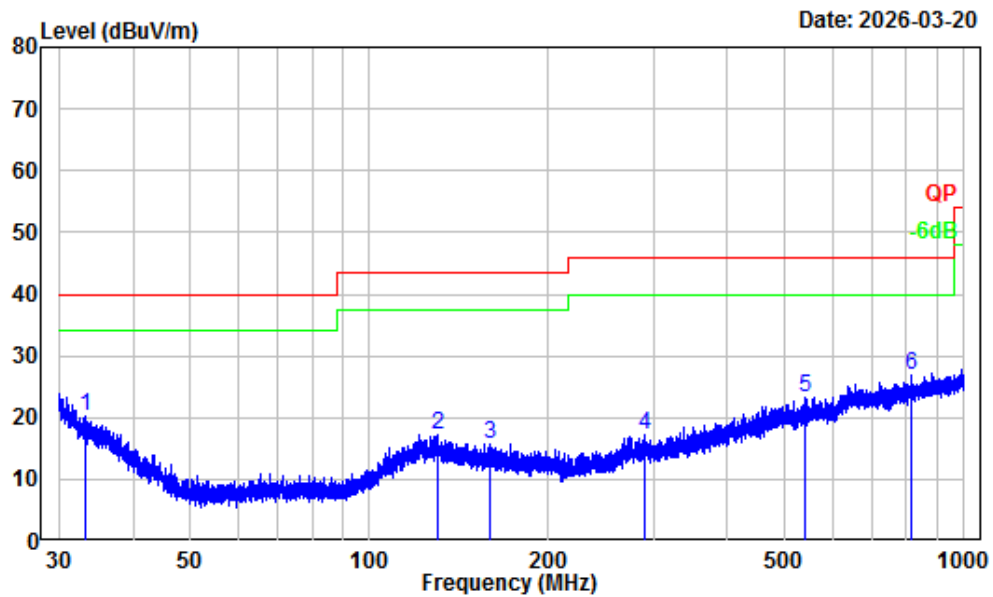
Note: When the test result of peak was less than the limit of QP/Average more than 6dB, just peak value were recorded.

Horizontal

Site : Chamber A
Condition : 3m Horizontal
Project Number : 2601Q16390E-RF
Test Mode : Transmitting
Detector: Peak RBW/VBW: 100/300kHz
Tester : Anson Su

	Freq	Factor	Read Level	Limit Level	Over Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	35.08	-8.88	28.51	19.63	40.00	-20.37	Peak
2	125.39	-11.50	28.82	17.32	43.50	-26.18	Peak
3	240.83	-13.71	30.54	16.83	46.00	-29.17	Peak
4	432.74	-8.31	29.19	20.88	46.00	-25.12	Peak
5	638.65	-3.99	29.47	25.48	46.00	-20.52	Peak
6	868.75	-2.10	29.42	27.32	46.00	-18.68	Peak

Vertical



Site : Chamber A
Condition : 3m Vertical
Project Number : 2601Q16390E-RF
Test Mode : Transmitting
Detector: Peak RBW/VBW: 100/300kHz
Tester : Anson Su

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	33.20	-7.65	27.82	20.17	40.00	-19.83	Peak
2	129.87	-11.58	28.66	17.08	43.50	-26.42	Peak
3	159.92	-13.04	28.87	15.83	43.50	-27.67	Peak
4	289.38	-11.63	28.94	17.31	46.00	-28.69	Peak
5	539.24	-6.19	29.53	23.34	46.00	-22.66	Peak
6	813.11	-2.46	29.32	26.86	46.00	-19.14	Peak

Above 1GHz:

Frequency (MHz)	Reading (dBμV)	PK/Ave	Polar (H/V)	Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reamark
Low Channel								
2402.00	90.86	PK	H	-10.99	79.87	114	-34.13	Fundamental
2402.00	79.75	PK	V	-10.99	68.76	114	-45.24	Fundamental
4804.00	62.96	PK	H	-7.83	55.13	74	-18.87	Harmonic
4804.00	58.49	AV	H	-7.83	50.66	54	-3.34	Harmonic
4804.00	56.46	PK	V	-7.83	48.63	74	-25.37	Harmonic
4804.00	50.43	AV	V	-7.83	42.60	54	-11.40	Harmonic
Middle Channel								
2440.00	90.01	PK	H	-10.90	79.11	114	-34.89	Fundamental
2440.00	79.78	PK	V	-10.90	68.88	114	-45.12	Fundamental
4880.00	63.03	PK	H	-7.67	55.36	74	-18.64	Harmonic
4880.00	58.23	AV	H	-7.67	50.56	54	-3.44	Harmonic
4880.00	56.58	PK	V	-7.67	48.91	74	-25.09	Harmonic
4880.00	50.01	AV	V	-7.67	42.34	54	-11.66	Harmonic
High Channel								
2480.00	87.76	PK	H	-10.92	76.84	114	-37.16	Fundamental
2480.00	75.83	PK	V	-10.92	64.91	114	-49.09	Fundamental
4960.00	60.86	PK	H	-7.57	53.29	74	-20.71	Harmonic
4960.00	54.77	PK	V	-7.57	47.20	74	-26.80	Harmonic

Note:

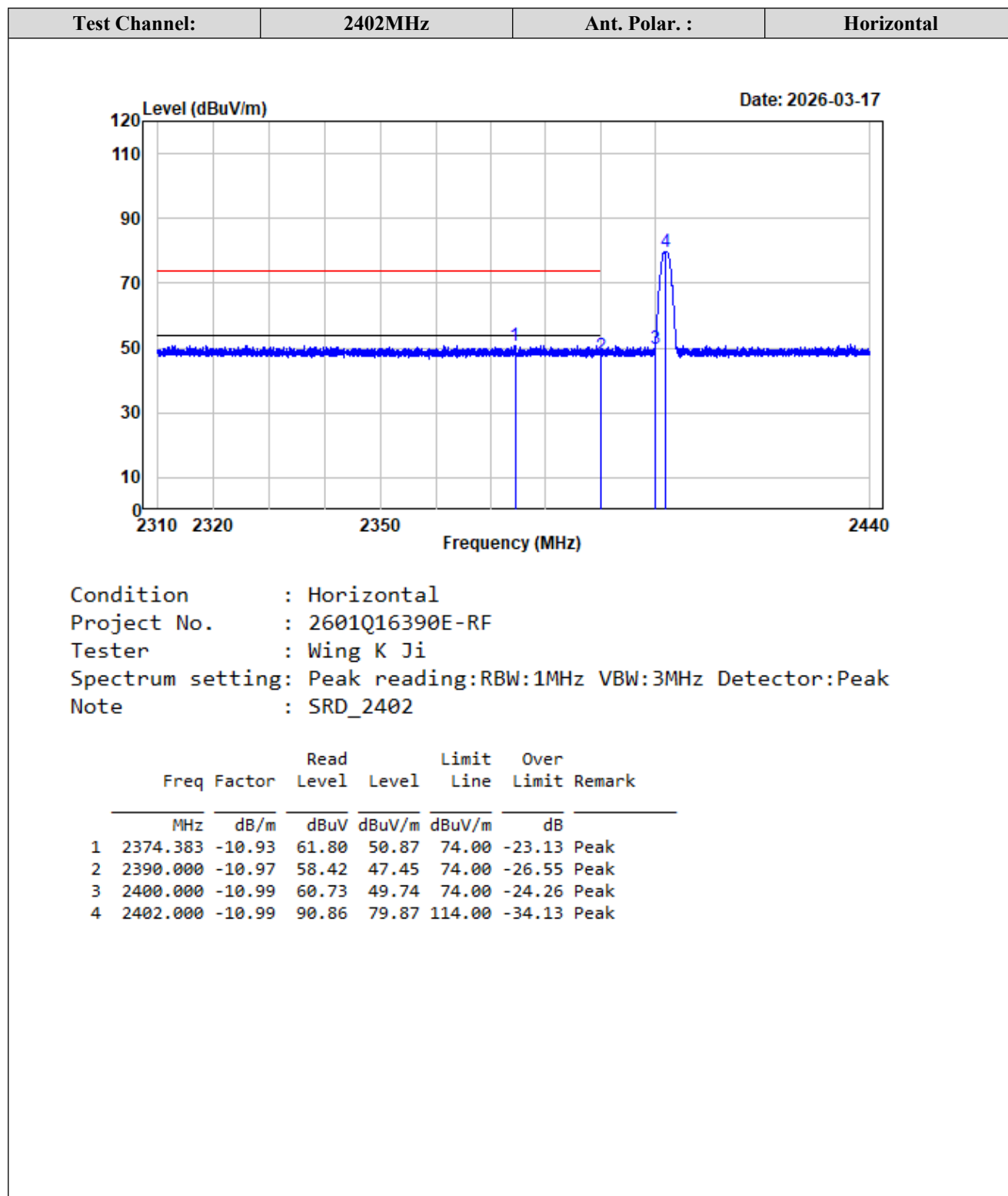
Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor

Absolute Level (Corrected Amplitude) = Factor + Reading

Margin = Absolute Level - Limit

The other spurious emission which is 20dB to the limit or in noise floor level was not recorded.

For Fundamental and Bad edge, the test result of peak was less than the limit of average, so just peak values were recorded.

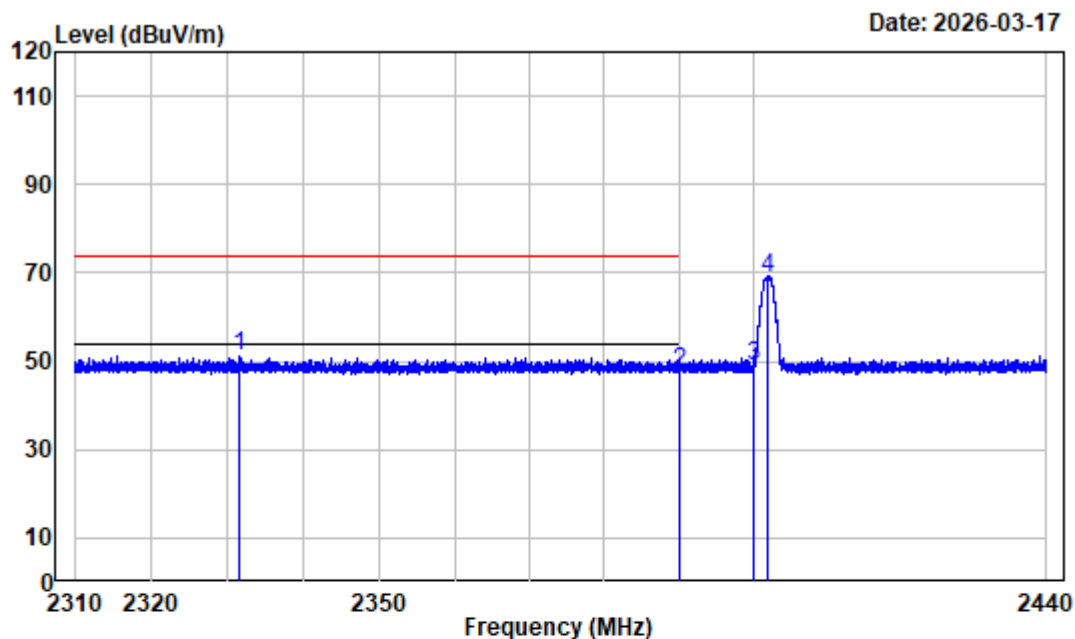
Test plots for Band Edge Measurements (Radiated):

Test Channel:

2402MHz

Ant. Polar. :

Vertical



Condition : Vertical

Project No. : 2601Q16390E-RF

Tester : Wing K Ji

Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak

Note : SRD_2402

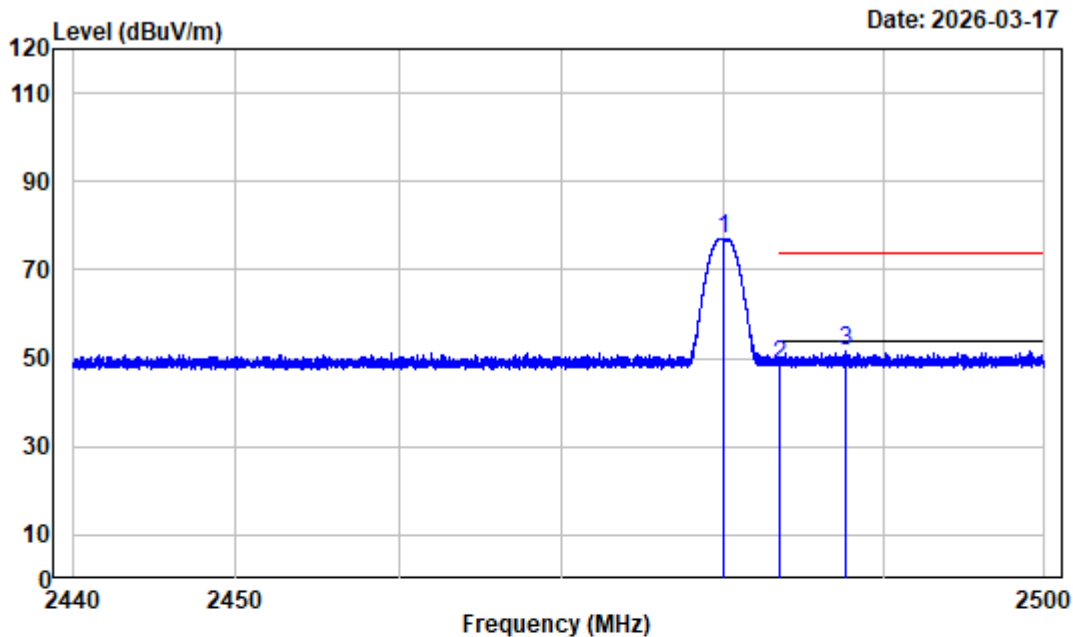
	Freq	Factor	Read Level	Level	Limit	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2331.661	-10.84	61.95	51.11	74.00	-22.89	Peak
2	2390.000	-10.97	58.71	47.74	74.00	-26.26	Peak
3	2400.000	-10.99	60.03	49.04	74.00	-24.96	Peak
4	2402.000	-10.99	79.75	68.76	114.00	-45.24	Peak

Test Channel:

2480MHz

Ant. Polar. :

Horizontal



Condition : Horizontal

Project No. : 2601Q16390E-RF

Tester : Wing K Ji

Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak

Note : SRD_2480

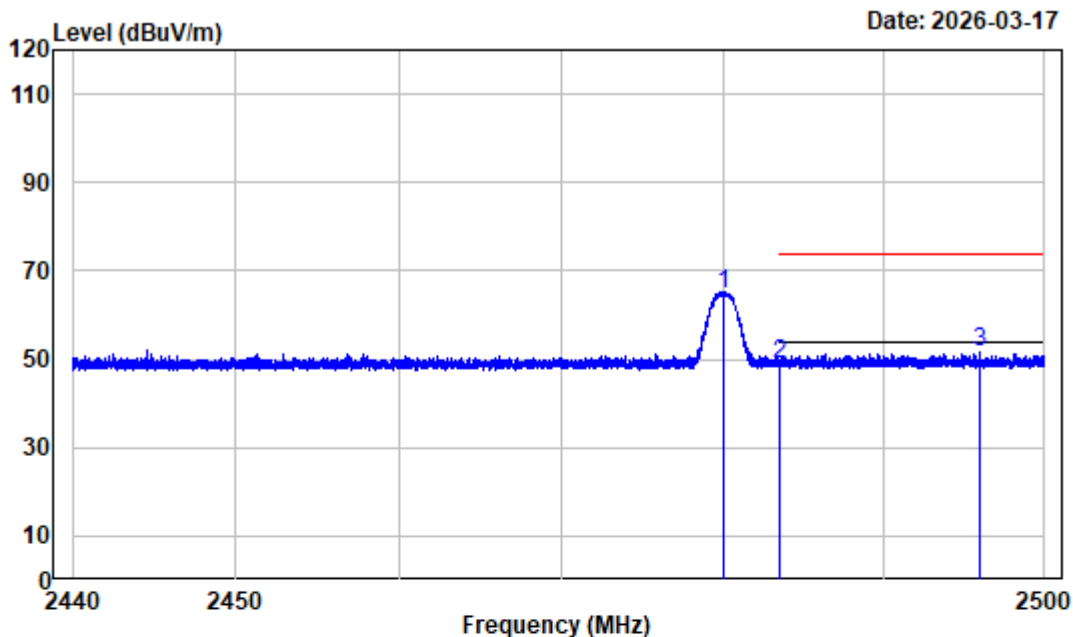
	Freq	Factor	Read Level	Level	Limit	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2480.000	-10.92	87.76	76.84	114.00	-37.16	Peak
2	2483.500	-10.93	59.44	48.51	74.00	-25.49	Peak
3	2487.558	-10.93	62.68	51.75	74.00	-22.25	Peak

Test Channel:

2480MHz

Ant. Polar. :

Vertical



Condition : Vertical

Project No. : 2601Q16390E-RF

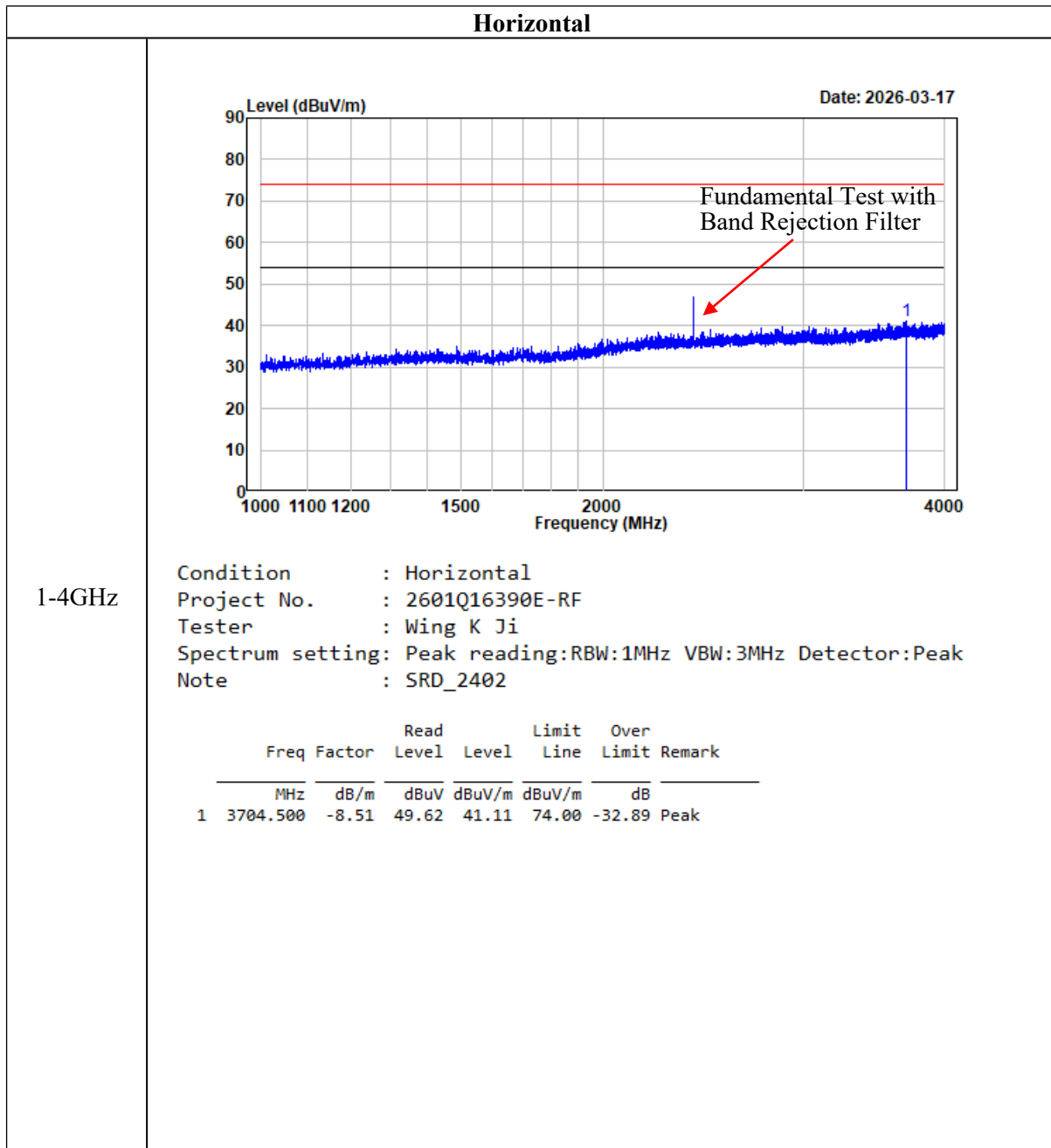
Tester : Wing K Ji

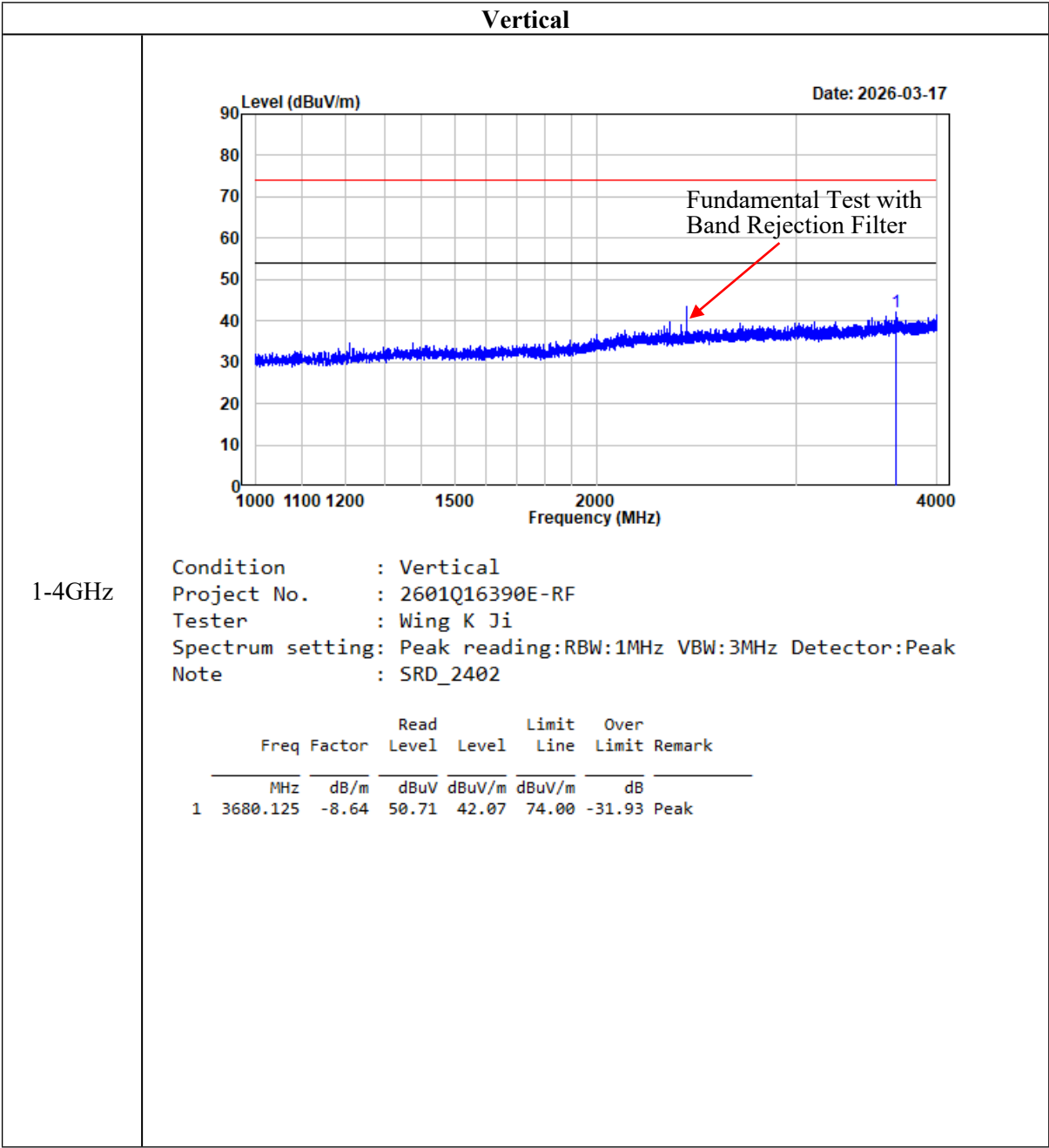
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak

Note : SRD_2480

	Freq Factor		Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	2480.000	-10.92	75.83	64.91	114.00	-49.09	Peak
2	2483.500	-10.93	59.89	48.96	74.00	-25.04	Peak
3	2495.913	-10.94	62.41	51.47	74.00	-22.53	Peak

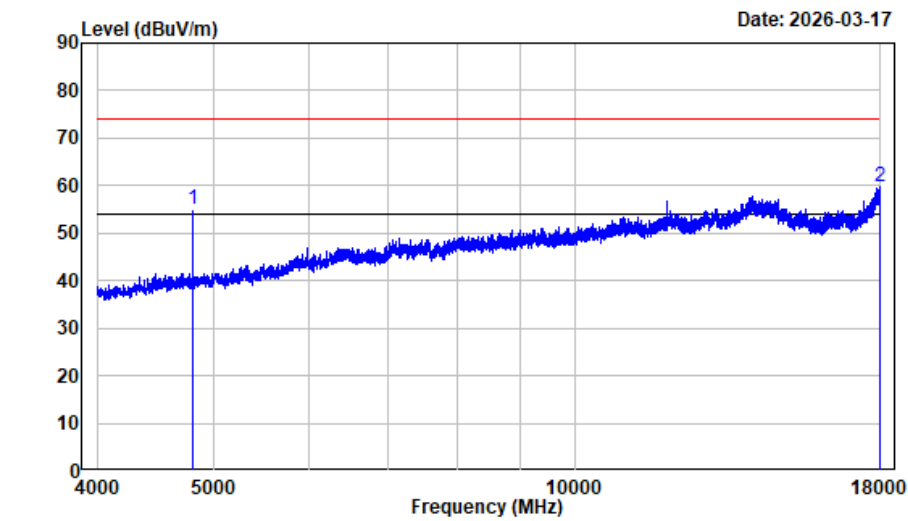
Listed with the worst case test plot:





Horizontal Peak

4-18GHz

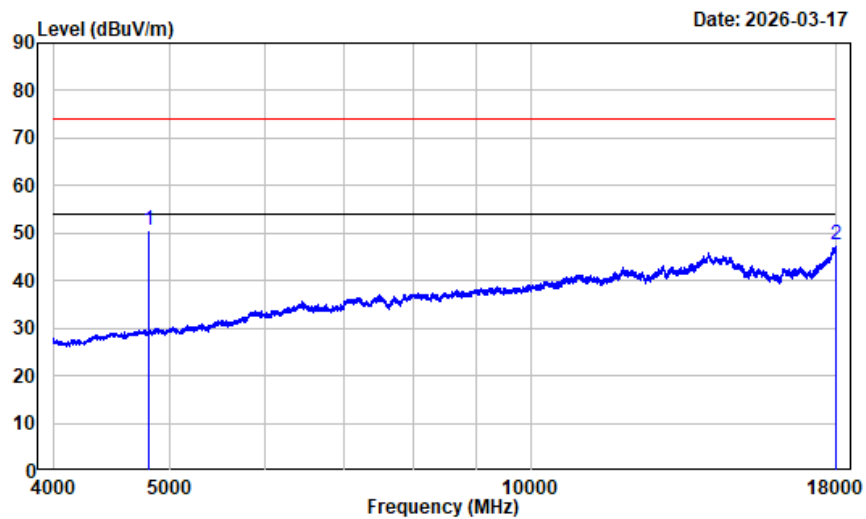


Condition : Horizontal
Project No. : 2601Q16390E-RF
Tester : Wing K Ji
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : SRD_2402

		Read		Limit	Over	Remark
Freq	Factor	Level	Level	Line	Limit	
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 4804.000	-7.83	62.96	55.13	74.00	-18.87	Peak
2 17979.000	9.46	50.48	59.94	74.00	-14.06	Peak

Horizontal Average

4-18GHz

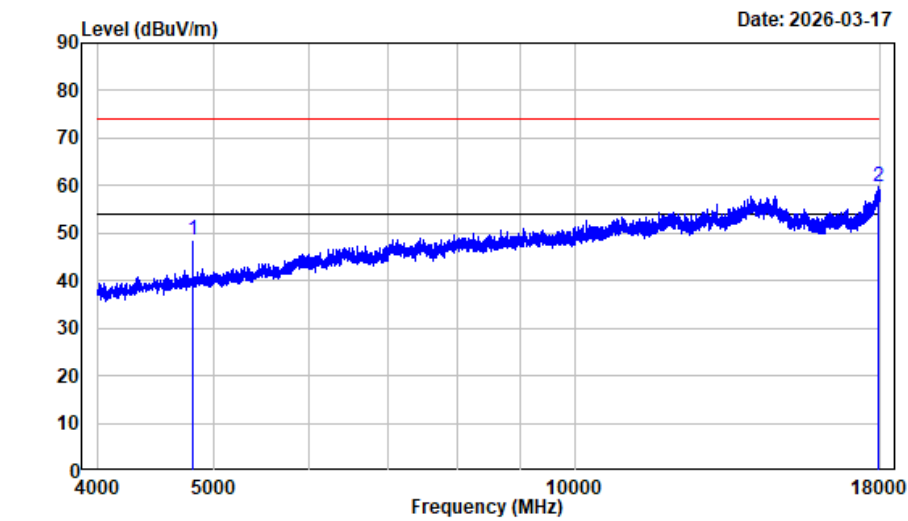


Condition : Horizontal
Project No. : 2601Q16390E-RF
Tester : Wing K Ji
Spectrum setting: Average reading: RBW:1MHz VBW:3kHz Detector:Peak
Note : SRD_2402

		Read		Limit	Over	Remark
Freq		Factor	Level	Level	Line	
		dB/m	dBuV	dBuV/m	dBuV/m	dB
1	4804.000	-7.83	58.49	50.66	54.00	-3.34 Average
2	17998.860	9.56	37.90	47.46	54.00	-6.54 Average

Vertical Peak

4-18GHz

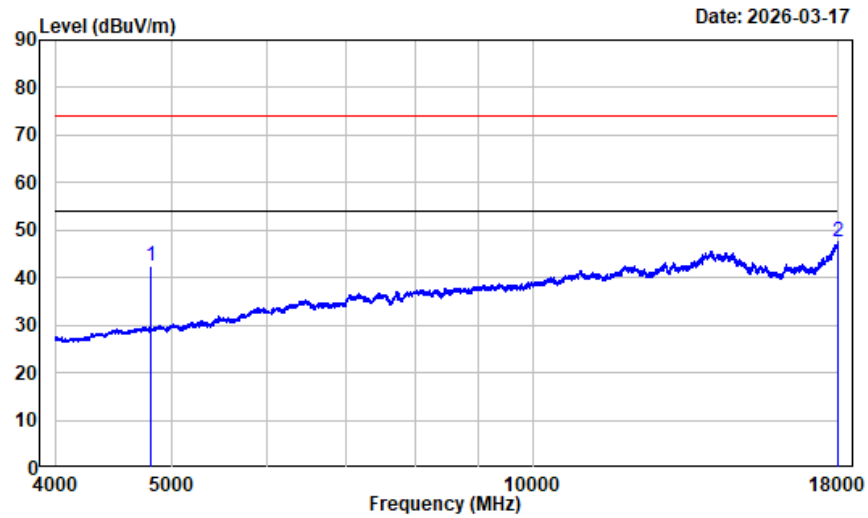


Condition : Vertical
Project No. : 2601Q16390E-RF
Tester : Wing K Ji
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : SRD_2402

		Read		Limit	Over	Remark
Freq Factor		Level	Level	Line	Limit	
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 4804.000	-7.83	56.46	48.63	74.00	-25.37	Peak
2 17903.750	9.11	50.65	59.76	74.00	-14.24	Peak

Vertical Average

4-18GHz

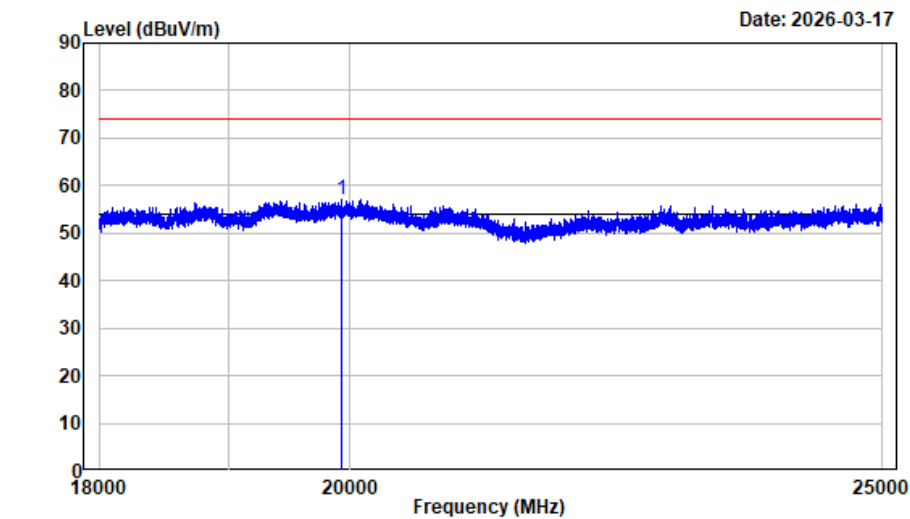


Condition : Vertical
 Project No. : 2601Q16390E-RF
 Tester : Wing K Ji
 Spectrum setting: Average reading: RBW:1MHz VBW:3kHz Detector:Peak
 Note : SRD_2402

Freq		Factor	Read Level	Level	Limit Line	Over Limit	Remark
MHz		dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	4804.000	-7.83	50.43	42.60	54.00	-11.40	Average
2	17977.250	9.45	38.12	47.57	54.00	-6.43	Average

Horizontal Peak

18-25GHz

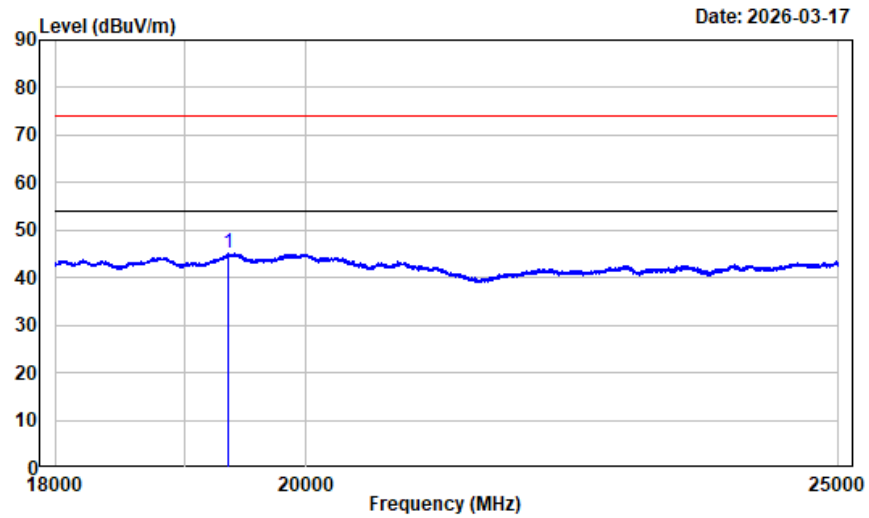


Condition : Horizontal
Project No. : 2601Q16390E-RF
Tester : Wing K Ji
Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
Note : SRD_2402

Freq		Factor	Read Level	Level	Limit Line	Over Limit	Remark
MHz		dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 19928.500		17.81	39.23	57.04	74.00	-16.96	Peak

Horizontal Average

18-25GHz

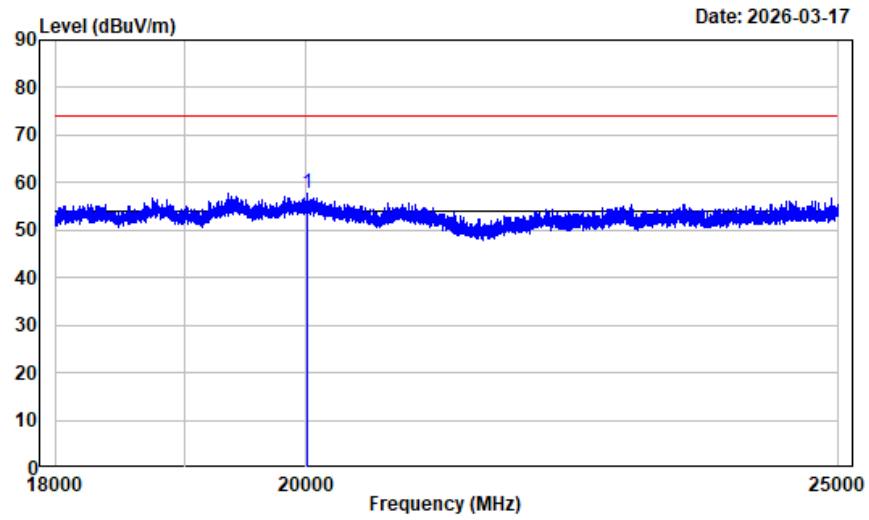


Condition : Horizontal
 Project No. : 2601Q16390E-RF
 Tester : Wing K Ji
 Spectrum setting: Average reading: RBW:1MHz VBW:3kHz Detector:Peak
 Note : SRD_2402

Freq Factor		Read Level	Level	Limit Line	Over Limit	Remark
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 19358.000	17.28	27.76	45.04	54.00	-8.96	Average

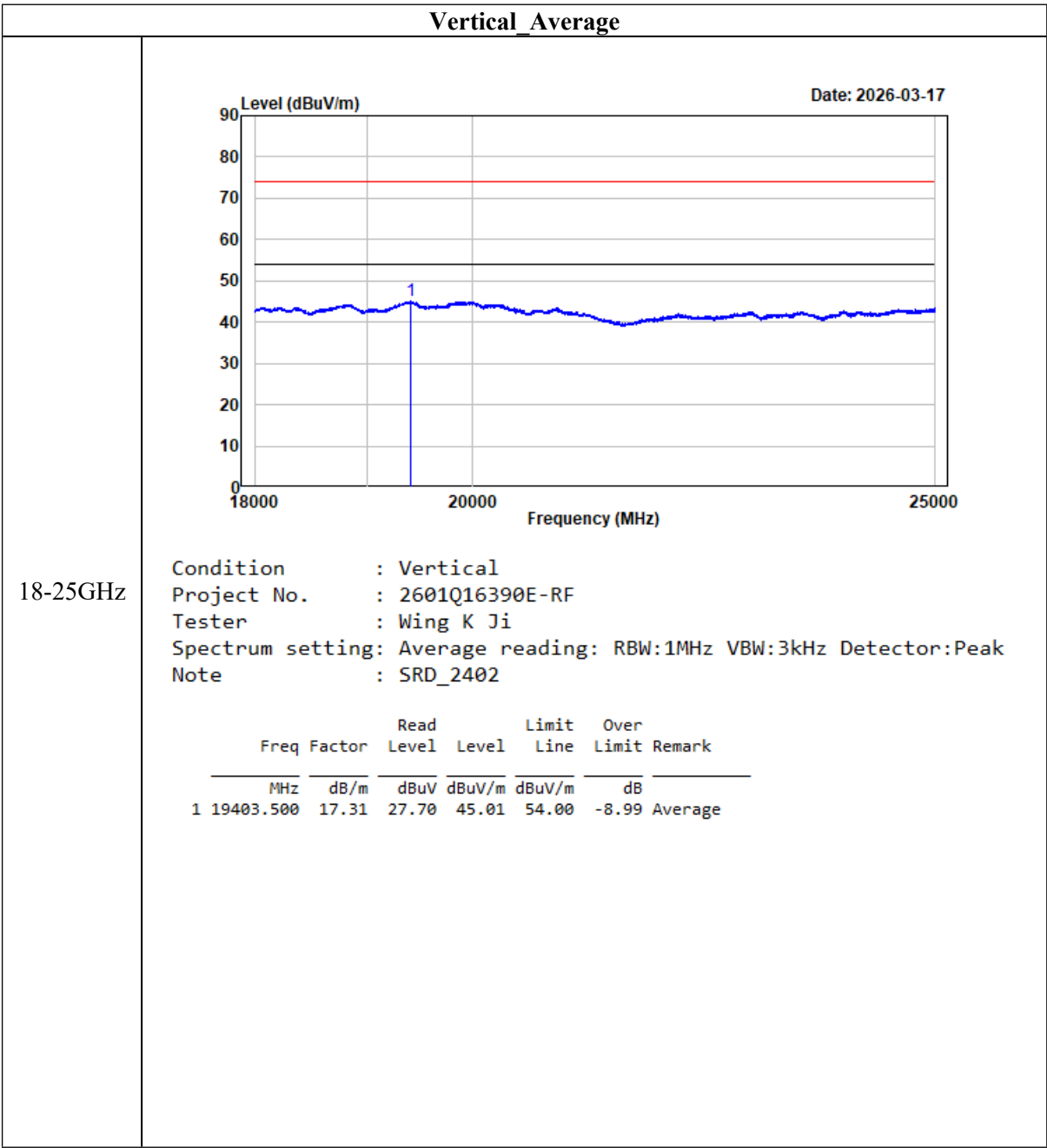
Vertical Peak

18-25GHz



Condition : Vertical
 Project No. : 2601Q16390E-RF
 Tester : Wing K Ji
 Spectrum setting: Peak reading:RBW:1MHz VBW:3MHz Detector:Peak
 Note : SRD_2402

Freq Factor		Read Level	Level	Limit Line	Over Limit	Remark
MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1 20013.380	17.86	39.76	57.62	74.00	-16.38	Peak



FCC§15.215(c) & RSS -GEN §6.7- 20dB EMISSION BANDWIDTH & OCCUPIED BANDWIDTH

Applicable Standard

Per FCC 15.215(c), Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

According to RSS-Gen §6.7

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

Test Procedure

Test Method: ANSI C63.10-2020 Clause 6.9.2 & 6.9.3

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be at least three times RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (\text{OBW}/\text{RBW})]$ below the reference level. Specific guidance is given in 4.1.6.2.
- d) Steps a) through c) might require iteration to adjust within the specified tolerances.
- e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target “-xx dB down” requirement; that is, if the requirement calls for measuring the -20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value.
- f) Set detection mode to peak and trace mode to max-hold.
- g) Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
- h) Determine the “-xx dB down amplitude” using $[(\text{reference value}) - \text{xx}]$. Alternatively, this calculation may be made by using the marker-delta function of the instrument.

i) If the reference value is determined by an unmodulated carrier, then turn the EUT modulation ON, and either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise, the trace from step g) shall be used for step j).

j) Place two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-xx dB down amplitude” determined in step h). If a marker is below this “-xx dB down amplitude” value, then it shall be as close as possible to this value. The dBc bandwidth is the frequency difference between the two markers. Alternatively, set a marker at the lowest frequency of the envelope of the spectral display, such that the marker is at or slightly below the “-xx dB down amplitude” determined in step

h). Reset the marker-delta function and move the marker to the other side of the emission until the delta marker amplitude is at the same level as the reference marker amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth.

k) The dBc bandwidth shall be reported by providing spectral plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:

a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.

b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.

c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (\text{OBW}/\text{RBW})]$ below the reference level. Specific guidance is given in 4.1.6.2.

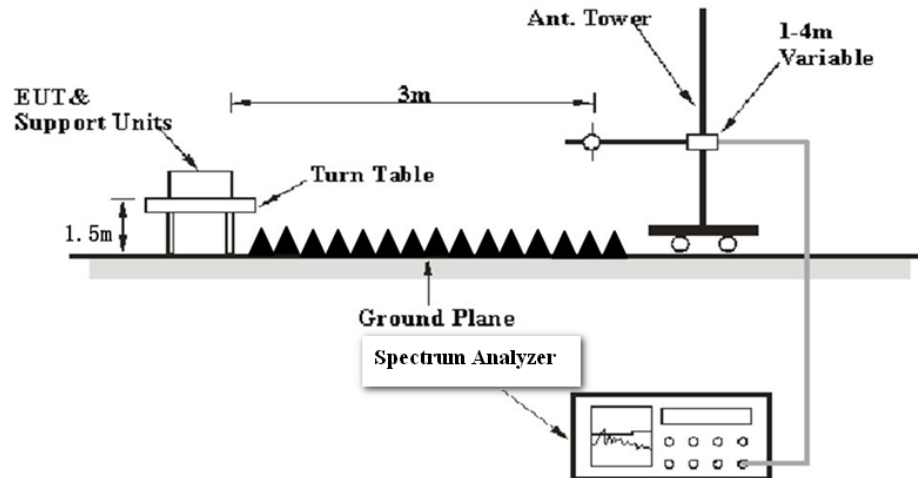
d) Step a) through step c) might require iteration to adjust within the specified range.

e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max-hold mode (until the trace stabilizes) shall be used.

f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

h) The occupied bandwidth shall be reported by providing spectral plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s)



Test Data

Environmental Conditions

Temperature:	22.6 °C
Relative Humidity:	52 %
ATM Pressure:	101.8 kPa

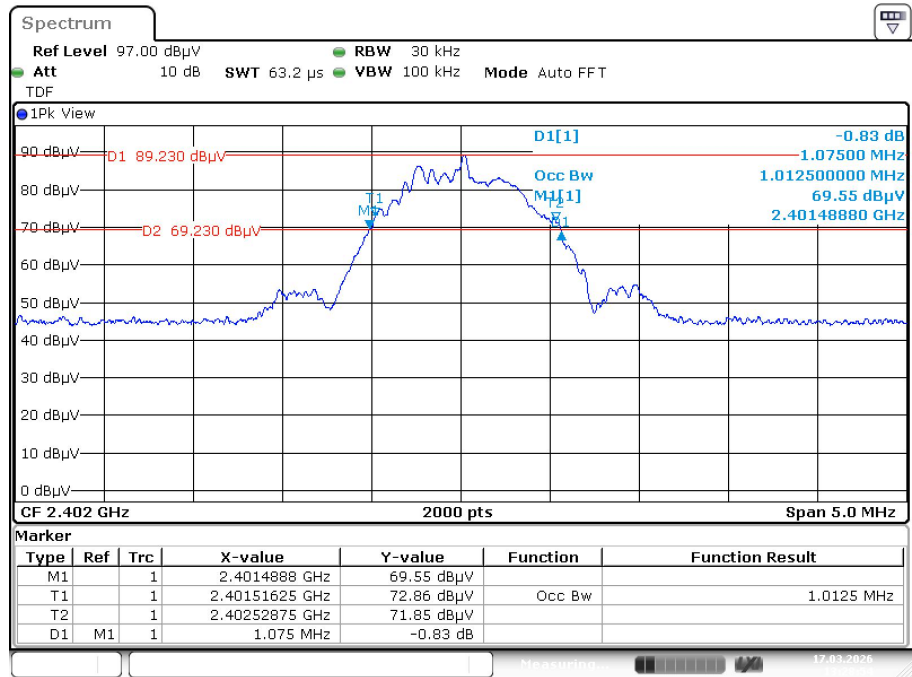
The testing was performed by Wing K Ji on 2026-03-17.

EUT operation mode: Transmitting

Please refer to the following table and plots.

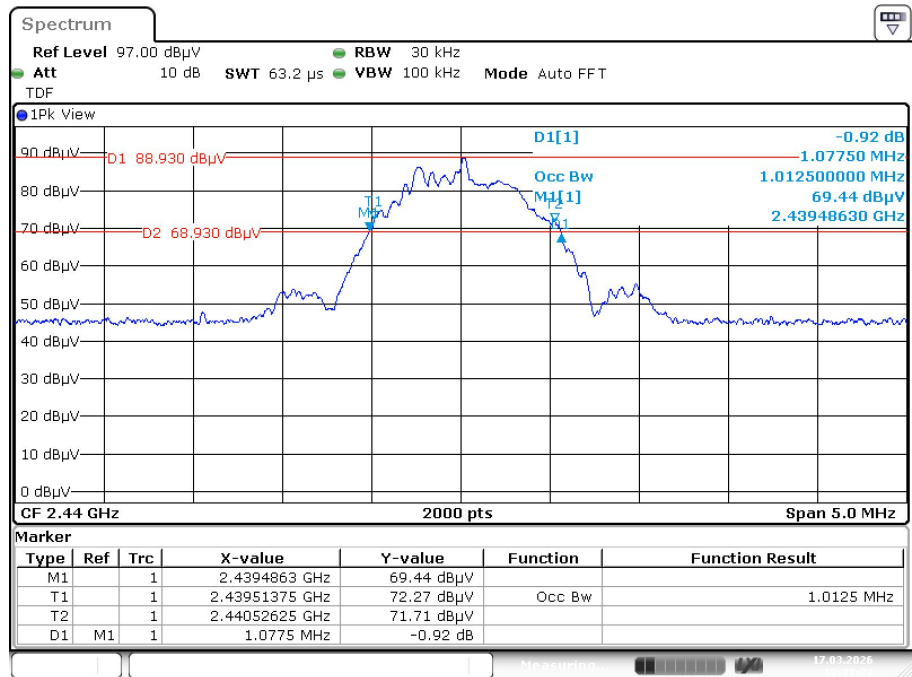
Channel	Frequency (MHz)	20dB Bandwidth (MHz)	99% Occupied Bandwidth MHz)
Low	2402	1.075	1.013
Middle	2440	1.078	1.013
High	2480	1.070	1.023

Low channel



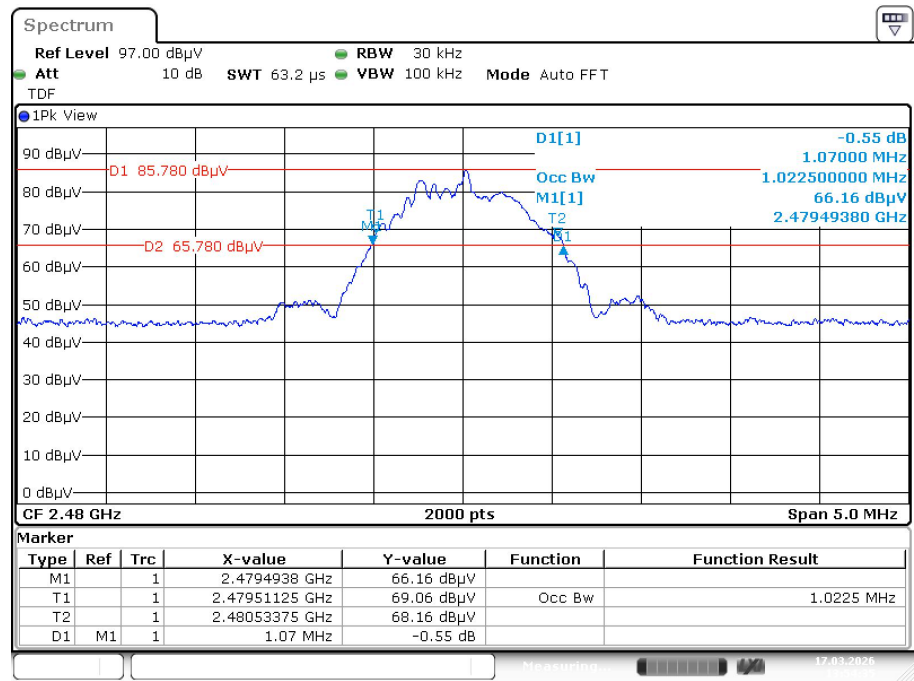
ProjectNo.:2601Q16390E-RFTester:Wing K Ji
Date: 17.MAR.2026 13:28:54

Middle Channel



ProjectNo.:2601Q16390E-RFTester:Wing K Ji
Date: 17.MAR.2026 13:32:23

High Channel



ProjectNo.:2601Q16390E-RFTester:Wing K Ji
Date: 17.MAR.2026 13:54:35

Note: The TDF is the parameter of the Multiplex Switch Test Control Set and does not include the antenna factor, cable loss and amplifier factor.

EUT PHOTOGRAPHS

Please refer to the attachment 2601Q16390E-RF-EXP External photo and 2601Q16390E-RF-INP Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2601Q16390E-RF-TSP Test Setup photo.

******* END OF REPORT *******